



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/773,531	02/06/2004	Naozumi Arimoto	8305-235US (NP146-1)	6798

570 7590 05/23/2006

AKIN GUMP STRAUSS HAUER & FELD L.L.P.  
ONE COMMERCE SQUARE  
2005 MARKET STREET, SUITE 2200  
PHILADELPHIA, PA 19103

EXAMINER
----------

MCAVOY, ELLEN M

ART UNIT	PAPER NUMBER
----------	--------------

1764

DATE MAILED: 05/23/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/773,531	<b>Applicant(s)</b> ARIMOTO, NAOZUMI	
	<b>Examiner</b> Ellen M. McAvoy	<b>Art Unit</b> 1764	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on the preliminary amend filed 02/06/2004.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-4 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-4 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>02/06/2004</u> . | 6) <input type="checkbox"/> Other: _____  |

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sato et al (6,617,286).

Sato et al ["Sato"] disclose a lubricating oil composition for continuously variable transmissions which comprises a lubricating base oil selected from mineral oil and/or synthetic oil formulated with (A) a wear preventive, (B) a metal detergent, and (C) an ashless dispersant. The wear preventive is a phosphorus-based additive present in the composition in an amount to provide a range of 200-500 ppm (0.02 to 0.05 wt.%) as phosphorus based on the total weight of the composition. See column 4, lines 45-67. The metal detergent may be a calcium salt present in the composition in an amount to provide a range of 100-1000 ppm (0.01 to 0.1 wt.%) as metal content based on the total weight of the composition. See column 5, lines 1-32. The ashless dispersant may be a borated succinimide wherein the content of boron ranges from 0.1-5 wt.% based on the total weight of the boron-containing succinimide. See column 5, lines 35-61. Sato allows for the addition of other additive components to the composition including benzotriazole and thiadiazole metal deactivators which may be present in an amount of 0.001-3 wt.%. The examiner is of the position that the transmission compositions of Sato meet the limitations of the above rejected claims. Although mass ratios of phosphorus : calcium : boron : sulfur are not

specifically set forth, the amounts set forth for compounds containing each of these elements result in lubricant compositions meeting the claimed ratio.

***Claim Rejections - 35 USC § 103***

Claims 1-4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Watts et al (6,121,209) in combination with Smalheer et al.

Watts et al ["Watts"] disclose lubricating oil compositions suitable for use in automatic transmissions which comprise a major amount of lubricating oil and minor amounts of (A) a phosphoric acid-containing compound, and (B) an ashless antioxidant. Watts teaches that the preferred range of component (A) corresponds to approximately 0.02 to 0.04 mass percent phosphorus in the oil. See column 3, lines 6-13. Watts teaches that desirably a source of boron is present in the oil composition which may be present in the form of borated dispersants, borated amines, borated alcohols, borated esters or alkyl borates. See column 3, lines 14-20. Watts also allows for the addition of other additives to the oil compositions including corrosion inhibitors and detergents which are typically disclosed in Smalheer et al. Suitable corrosion inhibitors include metal dithiophosphates and metal dithiocarbamates which are set forth on page 6, and suitable detergents include calcium-containing detergents. Amounts of the various additives which may be added to the lubricant composition are cited in the Table in column 3 of Watts. The examiner is of the position that the transmission compositions of Watts meet the limitations of the above rejected claims. Although mass ratios of phosphorus : calcium : boron :

sulfur are not specifically set forth, the amounts set forth for compounds containing each of these elements result in lubricant compositions meeting the claimed ratio.

***Claim Rejections - 35 USC § 103***

Claims 1-4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bloch et al (5,443,744) in combination with Smalheer et al.

Bloch et al ["Bloch"] disclose lubricating oil compositions which are suitable as automatic transmission fluids containing a base oil and the reaction product of a phosphating agent and a thioalcohol. Bloch teaches that the reaction product may be added to the base oil in an amount corresponding to approximately 0.02 to 0.04 mass percent phosphorus in the oil. See column 4, lines 37-44. Bloch teaches that a boron source such as borated dispersants, borated amines, borated alcohols, borated esters or alkyl borates may be added, and that a molar ratio of boron to the phosphorus in the reaction product (B/P) is preferably 0.5 to 2.0. See column 4, lines 45-52. Bloch teaches that the lubricating oil compositions may contain one or more additives including corrosion inhibitors and detergents which are typically disclosed in Smalheer et al. Suitable corrosion inhibitors include metal dithiophosphates and metal dithiocarbamates which are set forth on page 6, and suitable detergents include calcium-containing detergents. Amounts of the various additives which may be added to the lubricant composition are cited in the Table in column 5 of Bloch. Bloch teaches that the metal in the detergent component is present in the composition in a metal to phosphorus molar ratio (M/P) of 0.005 to 0/5. See column 5, lines 27-44. The examiner is of the position that the transmission compositions of

Watts meet the limitations of the above rejected claims. Although mass ratios of phosphorus : calcium : boron : sulfur are not specifically set forth, the amounts set forth for compounds containing each of these elements result in lubricant compositions meeting the claimed ratio.

### ***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Ozbalik et al (6,034,040) disclose lubricating oil compositions suitable as transmission lubricants which contain from 0.5-5 wt.% sulfur and from 200-5000 ppm phosphorus, based on the total lubricating oil formulation. Boron-containing compounds may also be added.

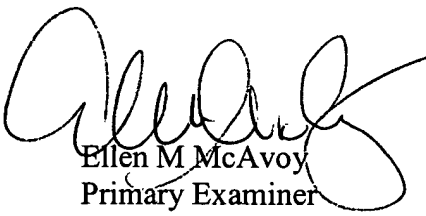
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ellen M. McAvoy whose telephone number is (571) 272-1451. The examiner can normally be reached on M-F (7:30-5:00) with alt. Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Glenn Caldarola can be reached on (571) 272-1444. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR

Art Unit: 1764

system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Ellen M McAvoy  
Primary Examiner  
Art Unit 1764

EMcAvoy  
May 17, 2006